AMENDMENTS TO THE CLAIMS

Claims 1, 6, 7, 9, 10, 11 and 12 are amended and new claims 13-15 added, as shown below. A complete listing of the claims in this case, with their status, is shown below.

1. **(Currently Amended)** A method of automating the setting of parameters, such as voltage level and pulse duration, for a jetting tube for dispensing liquids comprising the steps of:

a) selecting a voltage range and a pulse duration range with each value in the range having an expected likelihood of suitability compared to other values in the range;

b) selecting a first combination of the parameters of voltage level and pulse duration;

c) supplying a ~~pulse~~ **pulse,** or series of ~~pulses~~ **pulses,** having the selected voltage and duration to the jetting tube; and

d) detecting whether a droplet is formed, wherein

e) if a droplet is not detected selecting a further parameter combination; and

f) repeating ~~steps (c)~~ **steps (c),** (d) and (e) ~~are repeated~~ until a droplet is detected; and

g) if a droplet is formed and detected, analysing the droplet further to ~~ascertain,~~ **ascertain** whether secondary characteristics of the droplet are satisfactory; and wherein;

h) if the secondary characteristics of the droplet are not satisfactory**, further including the step of** selecting a further parameter combination and repeating steps (c) to (g); and

i) if the secondary characteristics of the droplet are satisfactory saving those parameters for that jetting tube.

2. (Original) A method as claimed in claim 1 wherein the expected likelihood of suitability of values in the ranges of pulse duration and voltage are determined from statistical analysis of results of previous jetting experiments.

3. (Original) A method as claimed in claim 2 wherein the selection of the first parameter combination commences with a statistically popular occurrence of voltage and pulse duration determined from the statistical analysis of results of previous jetting experiments.

4. (Original) A method as claimed in claim 3 wherein if the first parameter combination does not produce an acceptable droplet, second subsequent parameter combinations to be selected alternate either side of the first parameter combination with the next most popular occurrence which has not yet been used.

5. (Original) A method as claimed in claim 4 wherein one of the parameters is maintained constant while the second parameter is varied until all possible combinations of the second parameter with the one value of the first parameter are tested.

6. **(Currently Amended)** A method as claimed in ~~any preceding claim~~ **claim 1** wherein the secondary characteristics of the droplet include stability and flight angle.

7. **(Currently Amended)** A method as claimed in ~~any preceding claim~~ **claim 1** wherein the step of detecting whether a droplet is formed includes the step of taking an image of the droplet or droplets produced by the combination of parameters and analysing that image to identify whether a droplet is formed.

8. (Original) A method as claimed in claim 7 wherein the step of analysing the droplet further to ascertain, whether secondary characteristics of the droplet are satisfactory involves analysing an image or series of images of a droplet.

9. **(Currently Amended)** A method as claimed in ~~any preceding claim~~ **claim 1** wherein a frequency distribution of voltage and pulse duration from previous jetting experiments is prepared prior to selecting the first combination of parameters from which statistically unlikely values at either end of the range of values are excluded from the range of parameters to be used.

10. **(Currently Amended)** A micro jetting system for dispensing liquids including a means for automating the setting of voltage level and pulse duration parameters of the micro jetting system ~~including~~ **including:**

a jetting tube and control means for supplying a voltage pulse to the jetting tube having a known voltage for a known pulse duration;

means for capturing and analysing a image of a droplet jetted from the tube;

means for building or storing a frequency distribution of voltage and pulse duration from previous jetting experiments; and control means arranged to

a) based on the frequency distribution, select a voltage range and a pulse duration range with each value in the range having an expected likelihood of suitability compared to other values in the range;

b) select a first combination of the parameters of voltage level and pulse duration;

c) supply a pulse or series of pulses having the selected voltage and duration to the jetting tube; and

d) detect whether a droplet is formed, wherein

e) if a droplet is not detected select a further parameter combination; and

f) repeat steps (c) (d) and (e) ~~are repeated~~ until a droplet is detected; and

g) if a droplet is formed and detected, analyse the droplet further to ascertain, whether secondary characteristics of the droplet are satisfactory; and wherein;

h) if the secondary characteristics of the droplet are not satisfactory select a further parameter combination and repeating steps (c) to (g); and

i) if the secondary characteristics of the droplet are satisfactory save those parameters for that jetting tube.

11. **(Currently Amended)** A micro jetting system as claimed in ~~claim 11~~ **claim 10** wherein the first combination of parameters selected is the statistically most common voltage and pulse duration value based on the frequency distribution.

12. **(Currently Amended)** A micro jetting system as claimed in ~~claim 12~~ **claim 10** wherein further parameter combinations are dispensed in sequence where necessary until a satisfactory combination is found, with combinations to be selected alternating either side of the statistically most common voltage and pulse duration with the next most popular occurrence which has not yet been tried.

13. **(New)** A method of automating the setting of parameters, such as voltage level and pulse duration, for a jetting tube for dispensing liquids comprising the steps of:

a) selecting a voltage range and a pulse duration range with each value in the range having an expected likelihood of suitability compared to other values in the range determined from statistical analysis of results of previous jetting experiments;

b) selecting a first combination of the parameters of voltage level and pulse duration being a statistically popular occurrence of voltage and pulse duration determined from the statistical analysis of results of previous jetting experiments;

c) supplying a pulse, or series of pulses, having the selected voltage and duration to the jetting tube; and

d) detecting whether a droplet is formed, wherein

e) if a droplet is not detected selecting a further parameter combination; and

f) repeating steps (c), (d) and (e) until a droplet is detected; and

g) if a droplet is formed and detected, analysing the droplet further to ascertain whether secondary characteristics of the droplet are satisfactory; and wherein;

h) if the secondary characteristics of the droplet are not satisfactory, further including the step of selecting a further parameter combination and repeating steps (c) to (g); and

i) if the secondary characteristics of the droplet are satisfactory saving those parameters for that jetting tube.

14. **(New)** A method as claimed in claim 13 wherein the first combination of parameters selected is the statistically most common voltage and pulse duration value based on the frequency distribution.

15. **(New)** A method as claimed in claim 13 wherein further parameter combinations are dispensed in sequence where necessary until a satisfactory combination is found, with combinations to be selected alternating either side of the statistically most common voltage and pulse duration with the next most popular occurrence which has not yet been tried.